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AN INTRODUCTION TO ECONOMICS

By W. Henderson Pringle

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AN INTRODUCTION TO ECONOMICS

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AN INTRODUCTION TO ECONOMICS

CHAPTER I

INQUIRIES AND CHALLENGES

Every intelligent beginner approaching a new field of inquiry to which his attention has been directed has some preliminary questions to ask of those who would urge him on his way. What is the purpose and scope of the study I am invited to undertake? What is its general drift? Within what limits may its conclusions be expected to hold good? Is its value purely personal to the student? Does it serve merely to expand the mind, enlarge the interests, and quicken the imagination of the searcher after its secrets? Or has it some positive external value? Are the ideas on which it is based, and the possible conclusions at which it may arrive, related to the practical needs of life?

In every department of knowledge a fully reasoned answer to such questions can only be given at the end of a prolonged and thorough investigation. Much at the outset has to be taken on trust. Pioneers must go forward in faith, nothing doubting. But the purest faith in the value of any branch of inquiry must contain at least a certain minimum of knowledge or reasonable expectation. The earliest spies must have returned with some favourable reports, before the tribes can decide—apart from supernatural promptings—whether it is worth while to go in and possess the promised land.

These preliminary questionings, relevant to any intellectual pursuit, are particularly clamorous in the approach to Economics. They are particularly clamorous and extraordinarily difficult to satisfy. For one thing, Economics is a subject of which the ordinary man thinks he knows by the pure light of nature all that need be known. To study it with the same seriousness as he would study a physical science would be, in his opinion, a pure waste of time. The practical men, who conduct the world's business, constantly speak with contempt of the academic professors of Economics, because it is the one subject of which every practical man thinks himself to be a professor.

Even if the genuine student on the threshold is prepared to admit that he knows nothing about its real problems, or knows nothing as he ought to know it, he is at once faced, if he persists in his questionings, with an extraordinary jumble of conflicting opinions on the part of those who profess to know. Economics has been either extravagantly over-praised or contemptuously slighted. On the one hand, extreme enthusiasts, with more zeal than discretion, have claimed for it the last word on almost every social problem. They have invested the law of supply and demand with the authority of an eleventh commandment. They have cited the law of comparative costs as if it solved every possible problem in foreign trade. They have brought forward Malthus's laws of population to defeat every proposal for an advance in wages. In brief, they have treated the laws of economics, not as scientific summaries of fact or as an explanation of the framework within which modern industry is carried on, but as unchallengeable laws of nature, eternally valid irrespective of changes either in the circumstances of society or in the minds of men.

On the other hand, many critics of Economics, with more daring than knowledge, have treated its conclusions as a subject of derision. They have frowned

at Adam Smith as a Scottish pedant, jeered at Ricardo as a Jewish stockbroker, and dismissed every sound statement of economic principles as the fantastic theorizings of the academic mind. By other critics, Economics has been considered either as a worthless will-o'-the-wisp or as little more than an ingenious but dangerous exercise in formal logic—ingenious, no doubt, because it is the creation of a succession of able thinkers, but dangerous because, being based on purely hypothetical premises, it has systematically ignored the most essential and valuable elements in human nature. Its conclusions are lop-sided, since its data are unreal or partial. And, therefore, it is incapable—so these critics assert—of throwing any light worth speaking about either on the present organization or future development of human society.

The student approaching the study of Economics for the first time must not allow himself to be discouraged by the intemperate descriptions either of enthusiasts or critics. He must not imagine, on the one side, that economics will provide him with a philosophy—either with a philosophy of life, or with a philosophy of society. He does not even need to consider at the outset of his inquiries whether it can be called a science in the sense in which the word science has been used to describe investigations into natural phenomena. Nor ought he to be misled by critics into believing that it has no practical value in the solution of social problems. It is a broad, generalized treatment of certain sides of social life. These aspects of society do in fact exist. They present themselves to every person who gives a moment's reflection to the world in which we live. However simple and rudimentary society may be, they cannot be altogether ignored. And in the complex and bewildering modern world they obtrude themselves on the attention of even the least curious and most unreflecting minds.

Men live in societies. There is the great human society of which we are all members. There are great political and religious societies like the State and the Church. There are great industrial associations like the modern trade union or the medieval gild. There are an endless series of scientific, artistic, professional, and cultural societies ranging from dignified and permanent bodies, like universities, down to unimportant and ephemeral bodies which are created only to promote a temporary purpose and which are dissolved or break up as soon as that purpose has been achieved. Humanity is divided into a myriad series of social groups, every one of which has been formed as a response to some human need. All of us belong to a few such societies, most of us belong to many. Now every conceivable kind of human society has an economic side. Whether its objects are economic or not, it can only realize these objects by economic means. We may take as illustrations three typical organized groups or associations. The statement obviously holds good of comparatively simple societies like the family. The family once had an economic purpose—in the technical language employed by the economists, the family was for many centuries an economic unit. To-day it is simply a social unit. But in order to exist and to be an effective social group the family must have an income and must spend it. To found a family—that is, to lift their families to a higher social grade—is the ambition of many men, on which all their business energies are concentrated. Inquiries into the finances of working-class families have a special significance for social students and reformers. So with Churches. There are few religious services of any denomination at which an offertory is not taken. Some Churches are the owners of vast estates or hold large capital investments. The present gifts of the faithful are supplemented by an income derived from similar gifts in past ages. The revenue so obtained

they devote to the maintenance of religious observances and ecclesiastical buildings and to the support of numerous agents, lay and clerical, both at home and abroad. In other words, the Church, like the family, though existing for spiritual or transcendental purposes, has also an economic side. Or, again, in the present day enormous amounts are spent on the organization of sport. Nearly every football or cricket club, whether composed of professionals or amateurs, depends on its " gate " money—every one of them requires an income in order to carry on. Indeed a criticism is often brought against leading football clubs that real sport has become quite subordinate to finance.

These three illustrations, which may be paralleled by others drawn from every other type of social organization, reveal the existence of a vast network of economic relations even outside of the distinctively economic region. Children cannot be born, men cannot worship together, they cannot play games together without economic considerations having to be taken into account. But the greater part of economic life is concerned with work and livelihood. Even the individual, working alone, like Crusoe on his lonely island, would endeavour to regulate his life on some kind of economic principles. But to-day the genuine Crusoes form a negligible part of the world's inhabitants. Economic activities concerned with getting a living, are, like other social activities, largely, though not exclusively, determined by the existence of special groups or societies. Such groups include private firms, joint stock companies, trade unions, co-operative societies, and others too numerous to mention. The difference between them and other societies is that their main purpose is economic, whereas the economic factor in societies like the family or the football club is incidental to their main object. It is with the former, then, that the study of Economics is chiefly

concerned. Economic motives are the motives which normally guide the individual members of these societies in managing their affairs. Economic laws are a statement of the broad tendencies which govern their activities. Economics analysis is the method by which these laws are discovered. It may be based either on valid deduction from generally received maxims or on an inductive study of the actions and habits of men in society. And Economics itself is the name comprehensively applied to the general study of economic phenomena, whether displayed in the life of the individual and the operations of non-economic groups or of definitely economic associations—a study in which laws and tendencies, discovered by scientific analysis, are fused together into an orderly and coherent unity of thought.

Economics so conceived is a modern study. The Greeks and Romans had little to say about economic questions. In the writings of the ancients economic conceptions only appear in the interstices of philosophical and ethical discussions. Nor did the medievalists do much to advance economic inquiry. Modern Economics took its rise in the movement of European thought, which, beginning in the sixteenth century as part and parcel of the wider movement generally called the Renaissance, has pursued an uninterrupted course in the last four hundred years and has not yet reached its climax. The term "Political Economy" was first heard of in 1615. Adam Smith, who may fairly be regarded as the true founder of the modern study, published his great book, *The Wealth of Nations,* in 1776. It is worth while to note these dates. The first impetus of the Renaissance as a great humanistic movement—"humanism" meaning the spirit of free intellectual inquiry into every kind of human interest, in the development of which the medieval conceptions of life and society passed away—was over by 1615. By that time science had come knocking at the

door of the intellectual world. Firstly, Descartes laid the foundation of modern deductive inquiry. Then Francis Bacon and afterwards Isaac Newton laid the foundation of inductive scientific research. To these men we owe the growth of the scientific conception of nature "which regards the world as a closed material order moved by purely mechanical and mathematical laws." In its origins Economics was a humane study, conceived of mainly as a branch of the art of government—an inquiry into public revenue and expenditure. Only afterwards did it invent a technique that could be applied indifferently to every economic problem, private as well as public. Here, again, *The Wealth of Nations* was transitional. Gradually, therefore, economics was swept into the great current of scientific thought which Bacon and Newton originated. Not merely external nature, but human life and society began to be explained by the principles of scientific determinism, until in the nineteenth century economic law—that is, the laws which interpret one aspect of human activity—came to be regarded as analogous to the mechanical laws of physical science. The development of economics received its greatest impetus from the so-called Liberal or Rationalist Movement in France, that preceded the French Revolution, and the later Utilitarian philosophy that sprang up in England early in the nineteenth century.

The Physiocrats, who were the French predecessors of Adam Smith, "first conceived that the production and distribution of goods are carried on according to fixed laws of nature, and then attempted to apply the exact mathematical methods of natural science to the problems of distribution." And the English Utilitarians devoted their attention in the main to working out a calculus of material pleasures. Few Economists have ever got outside the circle of French Liberal or Rationalist ideas in which the science was cradled.

Apart from this intellectual movement, however, there is another deep-seated tendency in modern life that has operated in the same direction and has given vitality to the forces which created economics as a separate and independent study, divorced from ethics, philosophy, and religion. That is the ever-increasing emphasis laid on the material side of life. Our current speech has crystallized this tendency in many expressive phrases. The growth of the "acquisitive spirit," the desire to "get on," the urge to "get things done," the craving for material progress, the lessened sense of spiritual and æsthetic values, the increasing amount of human energy devoted to the mere "business of living," the restless pursuit of material progress by all classes—all these are feeble attempts to portray the dominating passions of the last two hundred years in Europe and America. Year by year they have gone on increasing in intensity. Ever since the industrial revolution, when the systematic application of scientific invention to wealth production first began to make headway on a big scale, they have provided the greatest field for mental effort, till to-day probably more than four-fifths of the best brains of all countries are engaged either in industry or commerce or in devising new inventions for stimulating the output of material wealth. The huge industrial system, created as the outcome of these fantastic and misdirected efforts, requires explanation. Hence a science of descriptive economics, intended to explain the nature and working of the system, has been evolved. Following in its wake there has also taken shape what may be called the art, or rather many arts, of applied economics, intended to improve the system in whole or in part and make it more efficient for its purpose.* The fundamental object of

* Social economics, for example, is a branch of applied economics which is specially concerned with the application of economic principles to social problems. Similarly, business economics is that branch of applied economics which brings together the economic principles that govern, or ought to govern, the action of manufacturers and other business men.

Western Civilization has become, not the art of living well, but the art of securing a good livelihood. Economics has in consequence become the chief social science. The whole secular urge has given it a commanding position from which it is not likely to be dislodged so long as current ideals and values undergo no drastic alteration. And not even the slightest signs of any such change are discernible at present.

CHAPTER II

THE ORGANIZATION OF INDUSTRY

THE student of modern industry is presented with a very definite problem or series of problems. In surveying the field of industrial organization, he must examine and classify the various types of organization that he discovers, he must bring out the nature and significance of the points of resemblance and difference between them, and, finally, he must show how all the separate industries, to whatever type they belong, are co-ordinated into one general system. Before setting about this task, he must, however, have a clear idea of what is meant by the general term "industrial organization" as applied either to a single country or to the world as a whole.

Every country contains at a given time a certain population which is fed, clothed, and housed—in other words which is able by the work of those who live in it to command a certain quantity of food, clothes, houses, and the other almost innumerable kinds of wealth that economists call material goods and non-material services. All these goods and services are produced and made available for use and enjoyment, not by the labour or effort of the individual working each for himself, but by the labour or effort of individuals co-operating with each other in some kind of order or system. This order we call the economic order, or, more usually, the economic system.

The fundamental principle, therefore, in industrial society is co-operation. Both the industrial organization of Great Britain or of any other country, and the

industrial organization of the world as a whole, are based upon the fact that men have common aims which make them willing to work together in more or less definite groups. These groups are in their turn connected with each other by numerous ties. The total sum of the groups in a country constitutes that country's industrial organization, and if we could discover the complete series of such groups in the world, we should have a comprehensive picture of the industrial organization of the whole world. Each particular group has its own place and function to serve in the general order, but it is only through the harmonious co-operation of all the groups in the general national and international organization that we are able to obtain the goods and services we enjoy in daily life. When that co-operation is interrupted, either by war, by strikes, or by other national or international disputes, then there is a shortage in the supply of the things we require. The industrial organization partially breaks down, and the whole community, or a large number of persons in it, is compelled to reduce its consumption of wealth.

These groups may be classified in a number of ways. The most usual and, for some purposes, the most convenient method is to classify them into the following divisions: (*a*) Groups which supply a country with its food and raw material—these groups consist of the agricultural and extractive industries; (*b*) groups which work up or manufacture the materials provided by the first class or group into products fit for human use—in these groups are included the manufacturing industries of a country; (*c*) groups which deal in or handle manufactured articles and pass them on from the second class, generally, but not always, to the ultimate consumers—*i.e.*, the commercial or trading groups. They include a number of miscellaneous but important groups, which provide the money or media of exchange, and perform other

services necessary to enable the other groups to carry on their activities. Among these are the commercial professions, including bankers, stockbrokers, accountants, insurance brokers, etc. But this is only one of many possible methods of classification; whichever method is adopted there are many cross-divisions and sub-divisions to be noticed. All the major groups may be sub-divided in an almost endless variety of ways. The essential point, however, is that they all involve a greater or less degree of co-operation among the individuals who comprise them.

While co-operation is thus the central feature of industrial life, the essence of co-operation is that it is an attempt to reduce to order or to bring under some principle or rule of law a whole series of conflicts in which man is constantly engaged in his efforts to secure a livelihood. In the first place, there is the unceasing struggle which man carries on with nature. Nature provides food and raw materials and, indeed, is the sole source of all the materials and forms of motive power that man can use. But neither materials nor motive powers are found in nature in a form suitable for human use. They cannot be turned to account except by skill, labour, and sacrifice. In this struggle with nature, men have discovered that better results are secured by co-operation than could be secured if each individual worked in isolation. Hence, on one side, all civilization is due to the combination or co-operation of men to wring her secrets from nature and to bend her to their own purposes.

Secondly, there is the conflict of man with his fellow-men. The struggle for existence, if not anterior to co-operation, is at least a parallel force of equal intensity. However simple or rudimentary any type of industrial organization may be, it represents an attempt to overcome conflict between human wills and desires. The general progress of industrial organization is the creation of economic and social devices, not

for eliminating conflict—that is impossible—but for settling the conflicts that inevitably arise. In modern society, for example, the air is full of the clash of conflict. Economic struggles are continually going on —struggles between labour and capital, between manufacturers and merchants, between wholesalers and retailers, between groups of workpeople or groups of manufacturers, or even between nations. These struggles are the necessary outcome of economic progress. But side by side with these conflicts there is also constantly being created new machinery for reconciling differences and for adjusting the claims of the parties involved in them. A large part of industrial organization consists of machinery of this kind. Illustrations can be taken from every branch of economic life. The story of British railway development since 1830 provides many illustrations of the way in which such social machinery is devised. The era opened with the formation of a large number of competing railway companies, each with its own schedule of rates and charges. As early as 1842 the need became apparent for some kind of central organization to adjust questions of fares and rates in which more than one railway company was interested. Consequently the Railway Clearing House was set up—a body which gradually became one of the most important organizations in the railway world. Thirty years later, competition between the small railway systems having led to numerous amalgamations and consolidations, the trading public took alarm and a violent controversy broke out between the companies who provided the services and the public who used them. Hence a new and independent court was established, the Railway and Canal Traffic Commission, before which traders could present their grievances and claim satisfaction for rates and charges levied in excess of the maximum rates laid down by Parliament. And since 1921 the ultimate control of the railways has

been put into the hands of a new and much more complicated system of tribunals and boards, to which the great railway consolidations created by recent legislation, their staffs and employees, and the traders and users of railways, have well defined rights of appeal. All this complex machinery has been provided to adjust conflicts between the owners of railways, their workpeople, and the public whom they serve.

Many other illustrations of the same broad principle could be given from nearly all trades and industries. Sometimes the organization for resolving conflicts has been set up by the industries themselves as a consequence of their experiences. Sometimes it has been imposed on industries by the State, as representing the general community. But the broad result of this continuous process is that the form of a country's industrial organization is constantly being modified as new kinds of conflicts arise and new situations develop in which the old types of organization become useless or obsolete.

The co-operation, therefore, which is to be found in every part of the industrial system is based on competition or conflict. The industrial system is the partly conscious and partly instinctive response that society makes to the question how the economic conflicts arising during the struggle for the material things of life can be solved in a practical manner. A general discussion of the historical development by which the system has come to be what it is to-day lies beyond the scope of this chapter. Such a discussion would involve a detailed treatment of at least three lines of economic progress; (1) the history of the changes that have occurred in the internal development of each separate industry, (2) the history of the changes in the general organization through which industries are co-ordinated into a unified system, including here the changes that have taken place through the impact of the State, or the political organization, or the industrial system, and (3) the history of changes in the commercial organization—that is, in the methods by which goods are bought and sold—and the organization for financing their purchase and sale, and for warehousing, merchanting, and shipping goods both during the process of manufacture and when manufacture is finished. But underlying all these historical developments, there have been general tendencies at work during the last hundred and fifty years which are too important altogether to omit.

The first is this. The modern industrial organization has been profoundly affected in all its parts by the great group of forces generally summed up in the term "the industrial revolution." This was a many-sided movement, too big for concise definition. But, broadly speaking, it meant the application of science to all branches of industry and especially to transport, the growth of the factory system out of the decaying domestic system, the development of large-scale industry, the creation of a network of facilities for saving, investing, and employing capital, the divorce of labour from the control of the instruments of production, and, in the last two generations, the rapid extension of the joint-stock system of the ownership and management of capital. Although historical research is every day making it clearer that no sharp line of cleavage can be drawn between the new and the old, and that some forms of modern industrial organization can be traced back to the Middle Ages, it is true to say that since 1780 the changes in the form and function of industrial organization have been so great that the term "revolution" may properly be applied to them. Scientific discovery has gone on at a constantly accelerating pace. These discoveries have created a new industrial technique. Side by side with scientific changes in the arts of production, the industrial system has also been modified. It has become more intricate, more specialized, more pro-

ductive. Its intricacy can be seen if we try to trace the number of processes through which a cotton shirt or a bottle of ink has to pass before it is ready for use. The degree to which specialization has been carried is apparent if we turn over the list of trades and professions to be found in the Postal Directory of any of our large cities. Its productivity can be appreciated when we notice that, in spite of the large areas of poverty still to be found in nearly all industrial countries, and in spite of all the economic dislocation caused by wars and social unrest, the output of farms, mines, factories, and workshops is many times larger than it was even a century ago.

The second point is this. The modern system of industrial organization is often called capitalism or the capitalistic system. These terms are frequently used both by defenders and by critics of the present industrial order. It is important, therefore, to analyze the precise meaning of the word "capital," and to understand the part it plays in economic organization. The word is sometimes used in a loose sense to mean the stock of knowledge both of industrial processes and of industrial organization—which has either been handed down from the past or has been acquired in recent times. The production of wealth is based on that knowledge. Without it our industrial organization could not exist. If all the existing factories, railways, machinery, ships, and other material equipment for producing wealth were to be swept away, so long as this body of scientific knowledge remained, it would be possible to replace them. But if it disappeared, the industrial system would disappear with it. By using this knowledge men have devised certain methods for creating wealth. The textile industries, the metal and other industries are organized round a core of scientific knowledge regarding materials and processes, and also of marketing and business customs, which every individual as he comes into industry

finds, as it were, ready-made and which a few individuals improve and extend during their lifetime. This body of knowledge is in constant flux. Invention is continually at work modifying and reshaping the content or body of knowledge transmitted from the past. In some periods inventions are so numerous and so quickly adapted to the needs of industry that this knowledge undergoes rapid and decisive changes. But at a fixed point of time there is a definite body of knowledge, which is the intellectual foundation on which the industrial system is reared.

This conception of capital is valid as far as it goes. But alongside of it must be placed another conception of even greater significance. All wealth is produced in time. To create any kind of wealth producers must have time in which to create it. In all states of society, except the most primitive, time is, therefore, a vital factor in the production of wealth. The primitive stage in which man was simply a hunter or a fisher, living on what he could capture or kill, was succeeded by the pastoral stage, in which herds of sheep or cattle were reared for the maintenance of the tribe. Man, the hunter, was followed in due succession by man, the shepherd. Now the production of sheep or cattle involved the element of time. And this element of time grew in importance as civilization advanced. When arable cultivation succeeded the pastoral age, and rye, barley, oats, and wheat became the staple agricultural products, the importance of the time factor increased. Seeds take time to germinate and grow, crops cannot be reaped immediately after sowing, and nature works slowly. In modern industrial society the significance of this time element is even clearer. At one end the industrial system is continually pouring out a vast stream of finished goods, clothes, books, furniture, pianos, tobacco, and all the great staples of consumption. But the production of these goods begins long before they are ready for use.

Between the preliminary preparation of the raw material and the ultimate purchase of the finished articles by the consumer a long interval of time must elapse. Further, the process of production involves the creation of a vast stock of goods which in themselves have no direct usefulness, but which are nevertheless essential because they help forward the production of the ultimate goods which are useful. A ship's engines have no direct or immediate utility. Neither has machinery in a factory, nor coal in a furnace. Their usefulness is indirect. They are of use simply because they are necessary in the production of other goods, which the economist calls consumption goods. They may, therefore, be termed production goods or capital goods. They are intermediaries, they bridge over the time between the first collection of the raw material and the last stage when the consumption goods are in the hands of the consumer for use or for enjoyment.

A capitalist system may thus be defined as a system of industrial production in which the element of time is of pre-eminent importance, or as a system in which a large part of human energy is devoted to the production and maintenance of capital or production goods, valueless in themselves, but intensely valuable as intermediaries in the production of the goods ultimately required. The element of time or "waiting" is therefore inherent in all methods of capitalistic production. But the terms "capitalism" or "capitalistic system" are frequently used when the uppermost idea is not the idea of the function which capital goods perform in industry, but the idea of the legal property in the goods. When our object is to stress this conception of property or ownership, a capitalistic system may be defined as a system of wealth production in which the ownership of capital or production goods is vested mainly in private individuals or in groups of private individuals and not in public or semi-

public authorities like the State and its organs. Discussion of the relative merits and demerits of each system is outside the scope of this book. But it must be remembered that the relationship between industry, or the industrial organization, and the State, or the political organization of society, is of profound importance.* The existing industrial system is affected and controlled by the State in a great variety of ways. The basis of the system is freedom—freedom of the individual to determine his own course of action, to produce what he pleases and to consume or use what he pleases, and when and as he pleases. But the State does not grant perfect liberty either to the individual or to any groups of private individuals. The State may say that certain industries shall not be carried on. It may prescribe the conditions or terms on which other industries may be carried on. It may intervene to correct the defects which arise from the unfettered working of industrial forces. It may, as in the case of the Post Office, supplement the industrial activities of private persons by maintaining services or producing goods on its own account. And, finally, all States undertake certain functions which vitally affect the working of the industrial system. The maintenance of a monetary system, the provision of armies and navies, the collection of taxes, the spending of taxes, are a few examples of State action that have an important bearing on the structure and function of the industrial organization of the country.

Whether the control of the State, exercised in these ways, should be extended or limited, and whether the capitalistic system, as a system in which private enterprise is paramount, is to be regarded as permanent or as a temporary phase in the evolution of society, it is certain that at present and for a long time to come production or capital goods are essential. Without

* For an interesting discussion of this question, see McIver, *The Modern State*, ch. ix.

them modern civilization would disappear. There are, however, two important deductions or corollaries which must be noted. One characteristic of all capital goods is that once made they cannot change their form. A railway engine cannot be used except as a railway engine. Textile machinery cannot be used to propel a ship. In technical language goods of this kind are immobile. The only free or mobile capital consists in the flow of savings—that is, the surplus of income over expenditure in a given period of time, not intended to be spent on future consumption, but for the production of additional fixed capital. These savings can be invested in any industry in which there is a demand either for an addition to the already existing stock of capital goods or for the repair or replenishment of existing capital goods which are being worn out or exhausted. The development of industry and the improvement of the industrial organization depend, therefore, on the savings annually made by the people of a country. Too liberal investment in one kind of capital goods may sometimes block the path of economic progress. It may be impossible to adopt a new form of transport as speedily as is desirable because large sums of capital invested in an older system cannot be immediately scrapped. Or a new system of lighting may be thwarted by the vested interests of those who laid down the plant of an earlier system. The balance between the new and the old in industrial life depends on the cheapness of capital, which in its turn depends on the rate at which savings accumulate for fresh enterprises. The more money is saved, the easier it is to introduce new devices; the trouble is not that there is too much, but that there is too little, capital.

The second corollary may be explained as an answer to a question. What is the connection between the volume of savings and the ultimate increase in consumable goods or the improvement in the standard of

living of a community? The answer is that without the intervention of capital goods, made possible by saving, the aid of nature and natural forces could not be brought in to assist in the work of production. Waiting or saving is not good in itself, but a sacrifice —the sacrifice of present or actual enjoyment for future or prospective enjoyment. That sacrifice makes possible an increased use of capital and the increased use of capital means that additional help can be derived from nature. "The deferred process," it has been said, "is more productive than the direct process, because the aid of nature or the avoidance of natural hindrances can only be secured when the appropriate appliances are provided." Capital goods, therefore, which are the result of saving, are essential in order that men may obtain the co-operation of nature in furnishing them with the goods they desire in ever-increasing amounts.

Besides this extended use of capital two other characteristics of modern industrial organization must not be overlooked. The present age, as we have seen, may rightly be described as an age of capitalism. But the term is apt to be misunderstood. It is an entire misconception to say that capital in itself occupies the predominant place in industrial organization. Capital is essentially a passive factor in wealth production. It can only be created by the active exertion of those who do not spend all the wealth they produce, but save at least a part of it. But, once produced, capital is passive. Its active employment depends on management and on labour. The specialization of modern industry is seen just as much in the specialization of labour and the specialization of management as in the use of capital goods. Of the two, management is the more important. The drive of modern industry depends on management. Unfortunately in the English language there is no adequate single word to describe all those classes who are responsible for the management of in-

dustry. They include not merely captains of industry, at the head of vast industrial concerns, and not merely bankers, through whom capital passes from those who save it to those who use it, but all classes, who co-ordinate labour, capital, and natural resources, in the work of industrial production. As distinguished from the investing class, who own the capital, they have been called the business class. Sometimes their interests may conflict with the interests of the owners of capital. But generally speaking the active employment of capital rests in their hands. They set the wheels of industry in motion, they direct the industrial organization as a whole and in its separate parts. The co-ordination of the productive energies of the community is their special function. But they do not form a single united class. They include manufacturers who control businesses, large or small; also, it may be, financiers, who settle the terms on which money shall be provided for particular enterprises; merchants and middlemen who pass on the products of the factories to the consumers at home or abroad. Though there is much overlapping, each section of industrial managers is a highly specialized group. But as a group, although they are not consciously co-ordinated in any way, they have the general direction of industry in their hands.

Specialization of labour is not, perhaps, so marked as specialization of management. But specialization of labour is also a noteworthy characteristic of modern society. Long before the present industrial system began, it was seen that the specialization or, as it was then called, the division of labour, was at the root of economic progress. To-day it has been carried further than ever before. The bulk of those engaged in each industry have specialized work to do. It is true that the demarcation of workers into definite groups is not absolutely rigid. There is a margin or fringe of workers who are not definitely attached to this or that

industry, but who move within certain limits indifferently from one industry to another. Further, in great emergencies the number of workers in one industry can be rapidly expanded and in another as rapidly contracted. War, for example, causes a violent dislocation. During the Great War large numbers of workers were transferred at an unexampled rate from particular groups of industries, such as agriculture and building, to other groups, such as engineering and chemicals. But such sudden transferences are rare. Partly from inertia, partly from economic reasons, the vast majority of workers remain during their lives in those industries which they have entered during the three or four years after they have left school. And they remain not only in the same industries, but in the same processes within the industry. Now, specialized labour is generally efficient labour. Granted that his particular job provides a field for the exercise of the best qualities of mind and character no reasonable objection can be brought against specialization. The limitation of a worker to a particular job tends to increase his efficiency and hence his output. Industry, therefore, gains by the modern specialization of labour, so long as the worker's hours are not too long and his work is not so strenuous as to impair his health.

To sum up, Industrial Organization is the method by which men weave together into a single whole the activities of those who own and use land, and who guide and control the operations of nature, the investment and employment of capital, the skill, labour, and knowledge of workmen, and the directive capacity of the managers of industry. Its aim is to provide a means for the satisfaction of human needs. It runs alongside of, and develops with, other kinds of social organization. It has in particular many points of contact with political organization. But it can be studied separately.

CHAPTER III

SUPPLY, DEMAND, AND PRICES

THE problem of prices has been rightly called the central problem in economics. Wealth indeed may be defined as every type of goods for which men are prepared to pay a price. No doubt most goods, included in the term wealth, are material goods or services incidental to the supply of material goods, but if men have to offer a price for the supply of any good, however non-material it may be, whether it is a good football match, good music, or a good sermon, that good is to some extent an economic good. Its purchase involves economic consequences, and it would not be supplied to the extent desired unless people were ready to offer a price in order to obtain it.

Economics, however, is preponderatingly concerned with wealth in the narrower sense of material goods and the services connected with the production, sale, or use of material goods. Much precious ink has been wasted in the attempt to distinguish between value and price. It is enough to say that value—that is, exchange value as distinguished from the so-called intrinsic or ultimate value—only becomes concrete in the conception of price. The exchange value of the goods to which a man is legally entitled and the services of any kind which he offers to society, can only be discovered when they are brought to the test of price. All of them have presumably some utility—that is, they are capable of satisfying a desire or a serious purpose—but it is only those material goods or personal qualities which he can sell in some kind of market that constitute his wealth. Price, exchange

value, and wealth are three economic concepts which cannot for practical purposes be disconnected. Wealth consists in all things which have exchange value, and nothing has exchange value on which it is not possible to put a price. Now, prices are governed on the one side by demand and on the other by supply. The analysis of supply and demand is, therefore, the core of every economic problem.

The simplest form in which the law of demand and supply can be stated is that prices rise with every increase in demand and fall with every decrease in demand, while they fall with every increase in supply and rise with every decrease in supply. It is important, however, to have a clear conception of the meaning of the words "supply" and "demand" and to understand the conditions which govern them. Firstly, demand does not mean need or want. Wants are indefinite—they are not limitless, as many economists have suggested, but they are not precise and measurable. The ignorant man has few wants, so perhaps has the wise man. But the average or normal man has a considerable number of unsatisfied wants. We frequently hear a person say, "I wanted that carpet, that house, that motor-car, but I simply couldn't afford it." What he means is that his demand is not an effective demand—the prices of the carpet or the house or the motor-car were all too high for him to buy any of them. His income is too low and his need for other things too great. But he may go on, "If the car had been £20 cheaper I should have bought it." At the lower price, that is, his demand would have become an effective demand. That is to say, "demand" means demand at a price. When the market reports tell us that the European demand for coal is falling off, the meaning is that at the price at which coal is being put on the market there is a reduced demand. If the price were to fall, then the demand would increase; if the price were to increase, the demand would fall. It

does not matter what the causes are that lead to a falling off in demand. Sometimes domestic coal may be in smaller demand at a certain price owing to a less severe or, as we say, a more "open" winter. Again, consumption at that price may decline owing to the competition of oil or electric power. If there is a given demand at a certain price, then the increased use of cheaper substitutes will diminish the demand at that price. On the other hand, a fall in price may lead to the maintenance of the demand at its former level. The important thing is to keep in view the conditions in which the demand is rooted. Sometimes they favour an increased demand at the price, sometimes a fall in demand. It is extremely rare for demand to remain stationary whatever the price may be.

In some cases, however, demand and price do not move evenly together. A small increase in price may result in a very appreciable fall in demand, or a small decrease in price may create a much larger demand. In that event, the demand for the commodity is said to be elastic. On the other hand, a great rise or fall in price may have little effect on demand. In that event, the demand for the commodity is said to be inelastic. Sometimes demand may be elastic at one period of the year and inelastic at another. Or, again, the demand for a certain commodity may be highly elastic in one district and very inelastic in another. It is unnecessary to give examples, which any reader will be able to supply.

One other aspect of demand on which too great stress cannot be laid is that generally a buyer's demand for any commodity falls off with every additional unit of the commodity which he acquires. The usefulness of two copies of Shakespeare's Plays to the ordinary man is not twice the usefulness of one copy —the usefulness of two dogs in a house is much less than twice the usefulness of one dog—the usefulness

of four quarts of milk per day to the average family is not four times the usefulness of one quart. Each additional purchase, while it gives some utility, gives a smaller utility than the preceding purchase. But the income—that is, the purchasing power—of practically all buyers is definitely limited. They cannot go on buying more and more quantities of a commodity until further purchases would have no further utility for them. They must, as a rule, stop long before that point has been reached, for, if they do not stop, they will not have sufficient purchasing power left to enable them to buy a sufficiency of the other commodities they require. A well-to-do man might be able to get some advantage by buying twelve suits of clothes a year, but if as a result he had nothing left over for a club subscription or a Christmas holiday on the Riviera, he might be prepared to be satisfied with eight or nine suits. Similar decisions have to be made by everyone every day, be they rich, or poor. The essential difference is that the poor man, with little purchasing power, has to stint himself in the necessaries of life, while the rich man with abundance of purchasing power is only obliged to make a choice between different kinds of luxuries.

The meaning of the word "supply" must also be carefully defined. Just as demand is always demand at a price, so supply means supply at a price. At any given price a certain quantity of a commodity will be put upon the market. If the price rises, the quantity offered will increase; if it falls, then sellers will try to withhold a portion of the supplies they send to the market. If the commodity is perishable, they must bring to the market immediately all the supplies that have been produced. Sometimes, however, they will destroy some part of the supplies in the expectation of receiving a larger total price by the sale of the remainder. It is obviously better to sell 100 units at 2½d. per unit than 200 units at 1d. per unit.

Suppose, however, that the article is not perishable. If prices fall, then less will be offered in the market. But the supply of most goods cannot be curtailed at once. A certain quantity has been produced and must be sold either immediately or at some time in the future. If sellers decide to offer less owing to the fall in price, they must pay the costs of storing or warehousing the goods until the price goes up. Supposing that this is not a serious extra charge the sellers will hold back the goods in the hope of a higher price later on. But then there arises the question of future or additional supplies. If the new price to which the goods have fallen is no longer high enough to give producers a sufficient return to cover their costs of production and normal profits, they or some of them will curtail their output for the time being unless they can find a way of reducing their costs of production. The decline in output, the conditions of demand remaining the same, will normally lead again to higher prices and a new equilibrium will be temporarily established.

On the other hand, we may imagine a rise in prices leading to an increase in supply. In this event there will be a rush of sellers. Their current output will be offered without stint, all possible reserves will be sought out and thrown on the market, and if the commodity be one which can be quickly produced additional new supplies will soon be forthcoming. Once reserves have been exhausted sellers have no option but to produce more if they desire to benefit from the higher prices. Whether it will be worth their while to produce more depends on the conditions under which production is being carried on.

In every industry costs fluctuate with the amount of output. At first sight it might appear that costs per unit of production either remain stationary or increase as the quantity produced increases. These are indeed two possible cases. But a third is even more

important—namely, the case in which costs per unit decrease with every increase in production. To these three possible trends economists have given the respective names of the law of constant costs, the law of increasing costs, and the law of diminishing costs. Or, alternatively, the two latter tendencies (for a law is simply a statement of a tendency which may or may not be counteracted) may be termed respectively the law of diminishing returns and the law of increasing returns. In the first statement we look to the effort put forth to obtain a certain return; in the second we look to the return to this effort.

Sometimes, then, production is subject to the law of increasing returns—that is to say, each additional unit is produced for the time at least at a smaller cost than the preceding unit. We assume that there is no simplified development in the technique of the industry at the time when the additional production is undertaken. If further output is desired, there are certain costs which will not expand rapidly—certain overhead charges will remain the same for a large as for a small output. Again, some of the running costs may not increase *pari passu* with the output. Machinery can be speeded up, labour can work more intensively and, above all, the total productive power of the concern can be better organized. A large scale business enjoys many advantages—it can lay down more expensive and more efficient plant and it can improve manufacturing technique by taking full advantage of the principle of division of labour, it can concentrate production of specified goods in a particular works or factory, it can secure reduction in transport charges both for new material and finished products, it can advertise on a bigger scale, utilize by-products, and establish scientific laboratories with a view to perfecting technical manufacturing processes. Many of these advantages are cumulative. But ultimately there comes a point at which the tendency becomes

less powerful and additional output can only be secured by increasingly higher costs. Were it not so, there would be no assignable limit to the increase in the size of a business until national and even world production was completely in the hands of a single concern.

The law of increasing returns applies principally to manufacturing industries, but it does not apply equally to them all. In recent times its effects have been most obvious in the transport industry, in which the vast array of independent companies have been merged into four gigantic operating units, and in the iron and steel and ship-building industry. However, it has been at the root of most of the economical progress and growth in wealth since the industrial revolution. And it is now the chief cause underlying the tendency to rationalization, which is referred to in a subsequent chapter.

Not less important in many respects is the law of decreasing returns. Frequently increased output can only be obtained at the cost of a more than proportionate effort. In certain circumstances the yield obtained by increasing the capital equipment of a business or augmenting the labour employed in it will not be proportionate either to the average yield of all the units of capital and labour already employed or to the yield of the last previous additions to the labour and capital. To take a simple illustration, the yield of wheat from a given field will not be doubled by doubling the amount of wheat sown, or by ploughing the field twice over. And the output of a factory may not be doubled by spending twice as much on each agent of production. The law, however, is nothing more than a tendency, and the tendency may be modified by the introduction of new factors. Better machinery, more skilled workmen, a more efficient organization will result in greater and not less than proportionate returns. In short, apart from the rare

case of constant returns, these two tendencies determine the supply that may be forthcoming in response to a quickening of demand. If the tendency toward increasing returns operates in a business, then a greater demand may serve not only to keep prices from rising above their former level but even in the long run to reduce them. On the other hand, if additional demand arises in the industry at a stage when the law of decreasing returns obtains then prices will rise, not because the demand has increased, but because the additional supply required to meet the added demand can only be forthcoming at a higher cost per unit than the unit cost of the supplies already available.

CHAPTER IV

POPULATION

It has already been pointed out that the business of the industrial organization is to meet the requirements of consumers. On the one side, there is the effort of producers; on the other side, the satisfaction of consumers. Day by day an unending series of wants have to be provided for, and day by day the industrial organization is functioning for the supply of these wants. On both the consuming and the producing sides, however, questions of population are fundamental. Other things being equal, the amount of wealth at the disposal of an individual depends in the first place on the total wealth produced and on the number of individuals who have to share it among them. But in production it is also evident that the size and organization of the industrial system depend both on the total numbers engaged in work, whether as suppliers of capital or labour, land or organization, and on the manner in which this working population is allocated to the different industries, either consciously by direct action, as in a Communist State, or unconsciously by the uncontrolled action of economic forces, as in the present industrial system.

An example of the way in which the size of a country's population affects its industrial organization is seen by comparing the United States with Great Britain. America's population is nearly three times as large as ours and hence methods of mass-production are suited to American industry to an extent that will always be impossible in this country. An example of the difficulties caused by the maladjustment of labour-

ing population as between particular industries can be found in the industrial situation in Great Britain after the war. The war made inevitable a transference of labour from certain employments to other employments—from agriculture and building and other trades to engineering and chemicals and similar industries engaged mainly on the production of munitions and guns. Hence, when industry at the end of the war had to revert to a peace basis, there were too many workers in the engineering industries and too few in the building trades.

It is clear, therefore, that the size of a country's population determines, at least in part, the extent of the market for which its production must enter. There are, of course, possible foreign markets to be considered. But even under a free trade system the home market must always be more important than the foreign market. The size of the population affects also the output of the industrial organization. The increased efficiency of the modern productive system could not have been obtained had the population remained stationary. The extent to which the principle of the division of labour can be carried in a community depends on the number of people in the community. Further, the amount of available labour has important reactions both on the health and physical well-being of the people, on the rate of remuneration of the people as a whole and of special groups of producers, and on general questions of economic and social progress.

The scientific treatment of the problem of population began with Malthus (1802). Several writers before his time, such as David Hume, had made some investigations into the actual facts of population in past history. But with the single exception of Quesnay (1756), the French physiocrat, none of these writers had attempted to base any kind of generalization on the facts so accumulated. The early modern school

of economists, known as the Mercantilists, had exaggerated the national value of man-power—that is, of a high population—with little regard either to the quality of that population or to the total amount of national wealth. Quesnay declared that statesmen should aim less at increasing the population than at increasing the national income, for the condition of greater comfort, which is derived from a good income, is preferable to the condition in which a population is so large that it is always pressing on the means of subsistence.

Malthus, however, was not directly connected with the physiocrats. His *Essay on Population* was a reply to the speculations of William Godwin, the father-in-law of the poet Shelley. Godwin believed that, by changing the social ideals which form the main part of human environment, society need no longer be kept down to the level of the means of subsistence. Malthus, it has been said, threw a douche of cold facts on these dreams of human perfectibility. Human progress, he affirmed, is limited and always will be limited by the available supplies of food. Even if a perfect State could be created on Godwin's plan, it would soon disappear because the inexorable growth of population would quickly destroy the balance between population and wealth.

The Malthusian theory placed all the emphasis on two phenomena. First, there is the tendency of the human species to multiply rapidly in all conditions. He estimated that on an average the population could be doubled every twenty-five years, and brought forward as an illustration, but not as an argument, the idea that population grows according to a law of geometric progression while food supplies only increase according to a law of arithmetic progression. Secondly, the growth of population in this proportion has been prevented by certain checks. These checks are of two kinds: (1) positive, (2) preventitive.

Positive checks increase the death rate, preventitive checks diminish the birth rate. In past history the major weight must be assigned to the positive checks. Wars, famines, and diseases have done most to diminish the population to prevent it from out-running the means of subsistence. Preventitive checks include celibacy, whether voluntary or enforced, the want of sufficient houses or the raising of the age of marriage. They may be increased by a rising standard of comfort or a general improvement in the social customs of the people.

His general theory was intended by Malthus to apply not only to the world as a whole but to every country in the world. There is, however, a remedy open to countries in which the population is growing too rapidly—that is, the remedy of emigration. When Malthus wrote emigration was illegal. Englishmen who went abroad had either to get the consent of their government or to risk going without that consent, unless, indeed, they were forcibly shipped overseas. Emigration was not legalized till 1825. But, at best, emigration was, in Malthus's opinion, only a temporary alleviation. It is, of course, obvious that he could not foresee the extraordinary development of the food-producing countries, nor did he anticipate that rapid development of transport which made it possible for the industrial countries of Western Europe to exchange their surplus manufactures for the surplus food-stuffs of the food-producing countries. But in any event he would still have maintained that these changes could not invalidate the laws he laid down. The pressure of subsistence on population was not abolished by emigration. It was only postponed. The law was a law of nature. It would operate in spite of all man's attempts to defeat it.

Malthus was, no doubt, also blind to the progress of invention. He stressed too much the importance of the law of diminishing returns. He neglected the law

of increasing returns. The business of invention is to increase supplies by reducing costs of production. Therefore, a greater output can be secured by an equal effort, or the same output can be maintained by a reduced effort. Modern economic science suggests that the constant development of invention is a force of at least as much importance as the preventitive checks in maintaining an equilibrium between food supplies and population. Nothing is more striking in recent times than the way in which the supplies of food have been increased by the adoption of scientific methods in agriculture. The increased output of new countries has been accompanied by an almost as striking increase in the output of old countries. The rate of the increased production in Europe has not fallen far short of its rate of increase in non-European countries, settled by European peoples. And to-day, agriculture all over the world is faced with a serious crisis due to the fact that its volume of production has outrun the purchasing power of the world, in spite of the no less significant fact that the relative numbers of those engaged in agriculture are less to-day than they have ever been in countries in which farming is in one form or another the principal occupation of the people. Still, though the adoption of scientific methods may prevent undue pressure of population on the means of subsistence for many generations, Malthus has not been exploded. To use Mr. J. M. Keynes's expressive phrase—Malthus' devil is still chained up, but he is a devil all the same.

During the greater part of the nineteenth century little attention was paid in Western countries to the population question. But the war and social movements, like the so-called emancipation of women, have again brought it to the forefront. Many sides of the question have little or no concern with economics. Still, economic considerations must have a great deal to do with any future regulation of the size of

families or the population of States. A conscious policy for controlling the rate of growth of population, so far as such a policy is conceivable or possible, must be mainly shaped by some accurate perception of the economic standards of life deemed to be essential. To safeguard existing standards is clearly a principal motive for the limitation of families. But the private policy of separate families may not be productive of the greatest amount of national well-being. There is no guarantee that the nation may have just that number of citizens which is economically most desirable through every family in the nation consciously seeking the greatest economic good for its members. What national measures ought to be adopted for regulating population will depend on the size of the population that is economically ideal.

Much recent discussion has turned on this question of the ideal or "optimum" density of population. The conclusions of current economics may, however, be regarded as fairly summed up by Dr. Cannan when he says, "At any given time, or, what comes to the same thing, knowledge and circumstances remaining the same, there is what may be called a maximum return when the amount of labour is such that both an increase and a decrease in it would diminish proportionate returns." In other words, the "optimum" population of a country is determined by the point at which the law of increasing returns has ceased to operate over the industrial field as a whole and the law of decreasing returns has not begun to operate. At that precariously balanced point the population is just the right one. If population either increases or decreases, the average income per head becomes a little smaller.

Another point emerges here. Dr. Cannan assumes that in determining the "optimum" population all industries ought to be lumped together. Malthus, however, limited his view to the food-producing in-

dustries. Mr. J. M. Keynes has developed the Malthusian view a good deal further by pointing to the increasing costs of production in manufacturing industries. Food has to be purchased with manufactures. According to Keynes, the world prices of food may go on falling owing to the further exploitation of agricultural countries overseas, but if the producing costs of manufactures rise more rapidly than the world prices, Britain will have to pay more for its food. It will not be able to maintain a growing population with the standards of life to which it has been accustomed. Mr. Keynes's reasoning has been challenged, among others, by Sir William Beveridge. In the long run, however, it would appear that for an industrial country like ours everything turns on the future development of science both in agriculture and in industry. Some new agricultural lands across the seas have still to be developed and to yield their quota to the world's supplies of food. Ultimately, however, this growth of local populations and the consequent decline in food exports will compel Great Britain to pay more for its necessary food. What price it can afford to pay will depend on the continuous growth in the productivity of its industries. If, owing to a growing scarcity of raw materials and increased cost of fuel and other motive power the productiveness of these industries declines, the price to be paid for imported foods will gradually increase and the standard of life will inevitably have to fall. It will only be possible for population to grow if science comes to the rescue. The invention of synthetic foods (an appalling prospect, by the way, for the *bon viveur*) and the discovery of sources of cheap power hitherto unknown may change the outlook. But apart from such scientific triumphs no such phenomenal progress in population as marked the nineteenth century can be predicted. The British people, and indeed all the white races, will rather resort to drastic limitation of

families than see the high standard of life to which they have become habituated put seriously in peril.

Indeed, if wars can be avoided in future there are no strong reasons for desiring an increase in population. Supposing that the East were to be appreciably Westernized, then, if war was still regarded as a legitimate instrument of national policy, the future of Western countries, in which population was stationary, would be dark indeed. Military prestige and national power are ideals that are only possible to nations with an expanding population. Once they were abandoned the question of numbers would become very unimportant. Even to-day the level of culture and refinement is at least as high in the smaller states of Europe, like Switzerland, Sweden, and Holland, as it is in the greater countries, and possibly even higher. If Western nations agree to abandon war and to give up economic power as the handmaid of war, the larger states would have ample economic resources for enlarging their culture and building up a finer civilization than they have hitherto known. And then the fear of a declining population would no longer oppress them.

CHAPTER V

MONEY AND CREDIT

One of the many dragons that Adam Smith went out to fight was the old-time idea that wealth consists solely or mainly in money. The idea dies hard. Though it is still at the root of many popular fallacies about economic questions it is no longer held by any decently educated person. Monetary questions, however, have become not less but more important since Adam Smith's time. During his life silver was still the standard of value, the banking system was in its infancy, London was only beginning to be the chief financial centre in Europe, and credit paid a comparatively small part in the industrial world.

Problems of money are of exceptional interest to-day for four reasons. Firstly, the whole system of prices and markets depends on money. Without money the existing method of production and exchange, based as it is on a countless series of exchanges, could not be carried on. Money, considered as a medium of exchange, which is its earliest and still very important function, is more essential than ever before. Secondly, side by side with the rapid expansion of industry during the last century there has been gradually evolved a network of highly intricate and specialized financial institutions, including the banks, the money market, discount and issuing houses, and credit societies. So well organized and powerful have these institutions become that many persons—and they are not all socialists—believe that modern finance is the master and not the servant of industry. At any rate, as the chief function of organized finance is to supply

money or credit to industry, industrial progress is accelerated or retarded by the efficiency of the monetary system. And the influence of the credit system on British commerce has become much more important by the closely allied set of historical forces which have led to the unparalleled development of our foreign trade and have given this country an unquestioned primacy in the international money market.

Again, in all leading countries of the world movements of general prices, which vitally affect every industry, and, indeed, every business concern, are largely determined by the credit policy of the governments and central banks. Such movements occur when there is a general expansion or general contraction of credit, and if they are serious they increase or check industrial enterprise and speedily react on employment, wages, and profits.

There is, however, a fourth reason—more important than any of the preceding—why particular attention must be paid to money. The very existence of economics as a distinctive study depends on money. Professor Alleyn Young has said that, like every other science, "economics proceeds on the assumption that there is some kind of order in the phenomena with which it deals. That there is some measure of regularity and predictability in economic phenomena is a commonsense assumption on which men act in the daily conduct of their affairs." That may be an assumption of common sense. But the instrument by which the order is disclosed is measurement, and in economics the measuring rod is money. Without such a measuring rod economics would be little more than a series of abstract propositions. Money enables us to bring the abstractions of economics to the test of fact. Through it the economist is able to relate the past to the present and the present to the future. Through it he is able to assess the relative importance to be assigned to every economic factor in the modern

world. The truth of this will appear if we examine any economic concept. Value, for example, is an abstract idea. Prices are concrete, measurable, and comparable. We can, like John Stuart Mill, define the value of the commodity as its relation to the whole range of purchasable commodities. That is an abstract idea from which we could draw very few practical conclusions. But once we substitute prices for value, we come down to the realities of the practical world. And without money price is meaningless; for price is value expressed in terms of money.

Money, then, is a standard of value. It is the measuring rod which the business man and the economist alike apply to assess the values of all goods and services. The principal inconvenience of barter is the absence of a standard. It is conceivable that society would dispense with money as a medium of exchange. It is impossible to think of industry being carried on without some sort of standard of value. The chief difficulty is to secure a kind of money that is fit for the purpose. Metallic money has certain qualities that have made it eminently suitable for effecting exchanges. It is easily divisible and therefore small purchases can be made with it; it is more durable than any other kind of money that could be substituted for it and therefore it can be used many times; it is worth something in itself and therefore it bears some relation to the goods for which it is exchanged. But as a medium of daily exchange it can practically be dispensed with. As long as the money habitually used for all but small transactions bears a fairly definite relation to some standard of value, actual metallic money can be reduced to a mere "token." In modern times it has been superseded by credit documents, like the note and the cheque, issued sometimes by governments, but principally by banks. These pieces of paper are called credit documents because they are nominally issued on the

security of gold, which the government or the banks in effect promise to keep in reserve to pay for any notes for which cash may be demanded. People believe that they are payable in gold on demand and so long as they hold this belief the value of the documents is maintained.

Gold, has, therefore, disappeared into the background, or, as we commonly say, it is no longer in circulation. Rather we might say it has retired into an inner shrine. The poorer worshippers in the economic temple use principally silver and copper, "token" money, the wealthier buy and sell with notes and cheques. It is only the high priests—the governors of the great central banks—who penetrate into the monetary Holy of Holies. There they watch the amount of gold that lies on their altars and settle from time to time the amount of credit which the community may use. Generally speaking, these priests have the confidence of the worshippers who throng the outer courts. Now and again there are mutterings to be heard and the worshippers show signs of losing faith in the priests. But the high priests, though prompt in action, remain secure in silence. They have learnt the wisdom of Dean Inge's aphorism: "The man who can hold his tongue can hold anything." Their job is to hold the gold—that is, to see that sufficient reserves of gold are maintained to give stability to the credit system of the country—and not to answer critics, who are often, indeed, not worth powder and shot.

Before going further, however, it is necessary to turn back both to summarize and to expand a little what has been already said. Money, as we have seen, has two principal functions—to act as a medium of exchange and as a standard of value. Of these the second is the most important. But it may be noted in passing that in former days money also frequently served as a store of value. The precious metals were

highly esteemed and there were few outlets for money in trade and industry. Hence people acquired money in order to keep their wealth in a convenient form. It was not bulky and therefore it could be easily hidden—an important consideration in unsettled times. And money or the precious metals still to some extent serve as a store of value, even in civilized countries, when confidence in the monetary system is shaken by war or civil disturbances, or where modern banking methods are undeveloped.

Metallic money is less used in this country than it has ever been. Gold disappeared from circulation during the Great War, and one pound and ten shilling notes (the issue of which would have been regarded before the war as imperilling the foundations of credit) have in large measure supplanted the use of silver coins. Money may, then, be divided into three groups: (1) actual cash or "token" currency, used chiefly in the payment of wages and in retail trade; (2) paper money, including notes and cheques, used for the great mass of commercial exchanges; and (3) gold, the basis on which credit rests but which is not now used for internal trade.

The standard of value is still the gold sovereign, weighing 123·27447 grains of standard gold—that is, of 22 carat gold or gold 11/12ths fine. This definition of weight is the first requisite of a standard. Almost equally important is the provision that all silver and copper coins should have only a limited currency. Their weight also is defined by law, but they are only legal tender up to £2 and 1s. respectively and they are not minted freely. Further, the mint is bound to accept all gold offered to it at the standard price. Again, from 1844 till the Great War the rule prevailed that all Bank of England notes should be convertible into gold on demand.

But these are not all the conditions needed for effective establishment of the gold standard. Two

further requisites are essential. Firstly, custom, or rather the absence of prohibitive legislation, makes it possible for gold to be freely exported and freely imported. This freedom of trade in gold is perhaps next to the regulation of the weight of the sovereign, the most effective regulator of the gold standard. A country which puts an embargo on the export of gold *ipso facto* departs from the gold standard. During the war the breakdown of the gold standard was made apparent by the prohibition of the export of gold under the Defence of the Realm Act regulations. But freedom of trade in gold rests purely on the general freedom of the individual to go about his business as he pleases so long as he does not violate some rule of law. It does not rest on statute. Secondly, the effective action of the gold standard also depends on banking custom. Notes, it is true, are automatically adjusted to gold by statute. But credit in the modern world is based, not on gold but on the cheque. Currency consists mainly of cheques, through which depositors in banks can operate on their current accounts, and the day to day trade of the country is carried on mainly by means of cheques. There is, however, no legal enactment that banks must keep a certain fixed ratio between the cash they hold and their deposit liabilities. The amount of cash reserves they maintain to meet their obligations to depositors depends entirely on banking custom.

The gold standard is therefore made effective by a complicated arrangement of legal obligations and business usages. As a result it is practically automatic in its working. There are only two further points which must be briefly explained, firstly, the nature of the credit system, which is built up on the basis of gold, and secondly, a fundamental defect in the gold standard, which has recently led to demands for a managed currency.

One principal function of banks is to finance trade.

In popular parlance they lend money to their customers. Now, all credits created by a bank, whether they take the form of loans or advances to customers or any other form, result in an addition to the currency. Where credits, so created, are excessive, prices rise, for prices depend partly on the supply of currency and partly on the demand for currency. The demand for currency consists of a volume of business transactions at a given time. If business transactions increase, prices can be kept steady by the increase in the amount of currency used in business. But, on the other hand, if the volume of currency in circulation rises faster than the number of business transactions increase, prices rise. The additional credit issues must be supported by a larger reserve of gold. Consequently the central reserve bank—in England, the Bank of England—must increase its reserves in order that the ratio of cash to credit may not fall. The only way by which this ratio can be restored is by a curtailment of credit. To curtail credit the Bank of England must raise its rate of discount, and in consequence the rate on loans to traders, and the rate for accommodation of all kinds rises. This in its turn results in a decline in the need for cash and prices fall.

An external drain of gold is the result of similar causes. Traders may be making too great purchases abroad and the export of goods may not have been keeping pace with the increased volume of imports. Any transactions, either mercantile or financial, that unduly increase the temporary indebtedness of the country cause a demand for gold for export. The reserve of gold kept by the Bank of England, which, it cannot be too clearly remembered, is the only reserve of gold in this country, gradually diminishes. In order to protect its reserve the Bank of England must raise its rate. By doing so it makes it more profitable for persons overseas to keep or to send funds here for temporary investment. But, at the same time,

it curtails its loans to home traders. They have to pay more for their loans and therefore the number of business transactions tends to fall, profits decline and unemployment increases. The position of London as the chief money market of the world may have an adverse effect on the development of home trade. It has often been said that to maintain London's supremacy in the world's money markets our merchants and manufacturers have to submit to higher rates for loans than they would otherwise have to pay. At the same time, it must not be forgotten that our foreign trade bears a very high proportion to our home trade—a higher proportion than obtains in any other country—and the freedom with which London lends to and borrows from the rest of the world, lending principally for long periods and borrowing principally for short periods—has beneficial effects on the whole foreign trade of Great Britain.

The gold standard is, however, not a perfect instrument. The reason is not difficult to explain. Money is a measuring rod for values. But the rod itself is not stable in value. No one to-day need be in the least surprised at this fact seeing that we have all now fallen under the spell of the idea of Relativity. In Professor Eddington's Gifford Lectures he draws a delightful picture of a conversation between Bergson and the Astronomer Royal regarding the nature of time—a conversation which ends in Bergson showing that the Astronomer Royal's idea of time is quite nonsensical and then rushing off to catch a train starting by the Astronomer Royal's time. The gold standard can easily be shown to be purely nonsensical and yet it is the best method that has hitherto been put into operation for regulating the flow of commerce. It is the best that has been tried, but not the best that has been suggested. It is fairly plain, when we come to consider it, that if we wish to measure values we must apply an instrument that

is itself of a fixed value. Now, not only does the value of gold constantly change—that depends on the output of the gold mines or the discoveries of gold (for gold is not exempt from the operation of the law of supply and demand)—but the amount of credit based on gold is also constantly changing. Therefore, prices may rise and fall from causes which have nothing to do with the supply of or demand for the commodities which are priced. In other words, changes in the value of a currency (considered as consisting of gold plus credit) will affect the prices of all goods and services. Their prices will rise as the currency increases and fall as it diminishes.

These alterations in the price level may be either (*a*) sudden and indeed almost catastrophic, or (*b*) cyclical and gradual. Of sudden alterations there is no need to say anything seeing that most persons now living have witnessed the most violent fluctuations in prices recorded in history. At the end of 1919 wholesale prices in England were more than two hundred per cent. higher than in 1913, and by the end of 1925 they had fallen to about fifty per cent. of their level in 1919. More important than such catastrophic alterations are the gradual rises and falls associated with the trade cycle. The trade cycle is a term applied to the rhythmical fluctuations in industry which have occurred with great regularity for the past two hundred years. A lean period of trade is followed by a prosperous period, and a prosperous period is in turn followed by a lean period. Many causes have been advanced for this phenomenon. But to-day the great mass of expert opinion holds that the efficient cause of the trade cycle is to be found in the expansion and contraction of credit. At the bottom of a depression money rates are high and little credit is available. As trade improves prices begin to rise, more credit is demanded and obtained, money rates fall and prosperity grows. More and more goods are

produced in the expectation of higher and still higher prices. A boom in trade follows. Ultimately, some unexpected shock is given to the prevailing mood of optimism among business men; the banks begin to restrict credit and fix a higher price for their advances; prices fall—at first rapidly, and then more slowly, till the bottom of the depression is reached and the trade cycle begins over again.

Hitherto, as is seen, the gold reserve of the Bank of England has been the regulator of credit issued by the banks. Fuller analysis of the trade cycle has, however, recently led to the demand for a "managed currency"—that is, in effect, a credit policy which should stabilize prices and prevent these periodic fluctuations in trade. The demand has been powerfully supported by the extraordinary changes in the distribution of gold among the great industrial nations that has resulted from the confusions in international finance that accompanied and followed the Great War. There is no space to go into this matter at length. But it is more than doubtful whether, at least for the last four years, our credit system has not been "managed." Certainly, again and again the drain of gold has been so considerable that if the directors of the Bank of England had been guided by pre-war principles the bank rate would have stood at a considerably higher level. It certainly is true that America has had a "managed currency." Had it not been for the firm control of money rates exercised by the Federal Reserve Board a huge structure of credit might have been reared on the enormous gold reserves America has accumulated. It is not suggested that in either country the management has been perfectly successful or that the central banks fully appreciate the correct principles on which the issue of credit should be controlled. But they are feeling their way towards certain lines of policy which imply a wide departure from pre-war methods. If such regulative

principles are adopted and put into operation the evil effects of extreme fluctuations in prices and in the volume of trade and employment may be averted or substantially reduced.

CHAPTER VI

COMPETITION AND MONOPOLY

THERE is a famous saying of a great medieval philosopher, William of Occam, *Entia non sunt multiplicanda præter necessitatem,* which Professor Soddy has translated into English in this way: "We make up our minds to accept as few fundamental things as possible which cannot be explained in terms of anything else." As a scientific principle this maxim is unimpeachable—indeed, it lies at the root of all scientific investigation. So far as economics is a science the maxim applies to it as much as to the physical sciences. But, of course, the principle may be, and often has been, wrongly applied. It may be pushed to extravagant lengths. We must not simplify complex phenomena at the expense of truth. We must be sure that we have discovered all the fundamental things and not merely a few of them.

It is over-simplification, for example, to try to explain the structure and working of the modern system of industry by reference to one all-pervading principle. Nevertheless, it has often been done. Sometimes it is competition, sometimes it is monopoly; again it may be either collectivism or individualism that has been declared to be the mainspring and regulator of economic life. The reason why such attempts to bring the mass of unco-ordinated facts into a central unity of principle are frequently made is not far to seek. People generally find what they are looking for. If they have formed some ideal for society, they are apt to believe that the ideal is actually shaping and guiding the world in which they live. We all like

to feel, like Carlyle, that the universe is behind us. And so our social philosophy leads us to interpret the economic order, past or present, in the light of our personal ideals.

Such an attitude of mind is, however, the reverse of scientific. Like many of the classical economists, we may believe in absolutely free competition as an ideal, or, like many modern writers, we may think that the social ideal is to be found in some form or other of State control. But to formulate an ideal for society is one thing, to explain the meaning and drift of economic forces is another thing. It is fundamentally untrue to say that industrial life can be explained in any simple fashion. Anyone can cite many examples of the operation of competition, monopoly, and State control in industrial society as we know it to-day. Each is an active principle, but none of them is a dominant principle. Both as producers and consumers men engaged in practical business affairs have to meet competition, monopoly, and government regulation either in one shape or another. There is no department of economic life in which all three of them cannot be found.

For want of space nothing will be said here about State control, the extent and degree of which involves many considerations outside the purely economic region. It serves mainly to regulate and set limits to competition and to monopoly and is not in itself an independent force.

Competition, in essence, means freedom—the freedom of every producer to produce what he wants to produce and to obtain for his produce the best price he can obtain; the freedom of every consumer to buy what he wants to buy and to buy it at the lowest price he need offer. This is the cardinal principle of competitive marketing. In every market there is a group of suppliers and a group of consumers. The suppliers compete with each other and so do the

consumers. The principle applies to services as well as to material goods, it applies also to the money of the money market, to capital offered and purchased in the market for capital, to labour in the market for labour. Further, industries are engaged in competition with other industries. To-day, for example, the coal industry is engaged in a stern fight with electricity, cotton and wool have to face the competition of artificial silk, theatrical producers the competition of the cinema. The industries of one country have also to meet the competition of industries in other countries. Indeed, competition is not only an active principle at work in the present industrial system; it is impossible to conceive of any industrial system from which it could be altogether banished. So long as there is change there must be competition. New goods, new machinery, new ideas are always struggling for recognition and old ideas, like old people, do not allow themselves to be easily superseded.

Free competition has two beneficial effects. In the first place, it tends to distribute the labour of a country in such a way that the maximum amount of wealth is produced. The most efficient producers remain in an industry, the others are either forced into other employments in which they are efficient or in which their inefficiency is less marked. Secondly, competition gives an alert, vigorous tone to the economic system. Contrary to some popular opinions it neutralizes the worst effects of human selfishness; it makes it impossible for the individual producer to fix his own price or to gain an undue advantage at the expense of his competitors. Competition, however, has two outstanding weaknesses. Firstly, it may be pushed to such an extreme that the prices received by the producers are not sufficient to meet their costs of production. This may happen occasionally in any market, and if it only happens now and again no

great harm is done. A few competitors are weeded out; but the permanent conditions of production are unchanged, so that over a period of years the average producer may reasonably expect to obtain a normal rate of profit. Sometimes, however, competition may become so intense that the margin between costs of production and prices is too small. Profits disappear and conditions become so bad that there seems little likelihood that an adequate yield can be obtained for many years ahead. In these circumstances some competitors will begin to consider whether it is not worth their while to amalgamate and by amalgamation reduce their working and overhead costs. If competition is extremely severe and no reduction of costs sufficient to restore a reasonable rate of profit to producers can be reasonably anticipated, they will go a step further and form a monopoly—that is to say, they will endeavour to get rid of competition altogether and so put themselves into a position in which they can raise prices above the competitive level. Monopoly is therefore often the result of too severe and prolonged a period of competition.

A second weakness of competition is that it is not limited to competitors of equal strength. The bargaining power of some competitors is much less than that of others. Sometimes, indeed, practically all who are engaged in the competitive struggle have little power of holding out for a remunerative price. This is especially true in the labour market. When the industrial era opened labourers had very little margin to fall back upon and hence they were feeble competitors—to gain power they had to combine with each other and form trade unions, which attempted to regulate the price at which their individual members sold their labour. If for some reason trade union combination is ineffective, the State may be obliged to step in and fix the minimum wage which each workman must receive. This has been done in Great Britain

by the Trade Board Acts, which have set up machinery for adjudicating wages in the "sweated" and some other industries.

Competition, therefore, tends largely to give place to combination in the modern world. There are many reasons for this, but before discussing them it may be pointed out that combination is not to be confused with co-operation. It has already been shown that competition and co-operation are equally essential to the working of the industrial system. Co-operation is necessary to any kind of economic order and the present "economic order, in its most essential features, owes its existence and its regulation to the free action of men pursuing their own economic interest."

Combination is a term given to unions of producers or consumers (principally the former) in order to reap certain advantages. Combinations of consumers aim at reducing prices either by temporarily withholding, or by regulating, demand, or by cutting out superfluous middlemen. Combinations of consumers are comparatively rare and they are generally short-lived. The only noteworthy example of a permanent combination of consumers is the great co-operative movement, which has obtained a firm hold in all the great industrial districts of England and Scotland. Its success is attributable to the fact that the retail co-operative societies have enabled their members to divide among themselves the profits that would otherwise have gone to distributors. It has not had any perceptible effect on the general level of retail prices.

Combinations of producers are of two kinds: (1) combinations proper, and (2) monopolies. The former, which we shall simply designate as combinations, are a union of large-scale concerns. Their object is to add to the economies of large-scale production the economies brought about by large-scale management. These combinations are either (1) vertical or (2)

horizontal. Vertical combinations are combinations which bring together under one management several plants, each of which is concerned with a separate stage in the production of a finished product. Suppose, for example, that a coal-mine, a blast furnace, a steel rolling mill, and a rail factory are brought under a common control, then we have a vertical combination. Suppose, however, that a number of businesses each producing the same commodity are united under a single management—that is a horizontal combination. The Bradford Dyers' Association is a typical example of a horizontal combination: Beardmores, Limited, the engineering concern, an example of a vertical combination.

Monopolies differ from large-scale combinations in that while a combination has effective competitors, a monopoly has none. The object of a combination is to secure certain economies in production and operation, the operation of a monopoly is to secure monopoly profit. The combination aims at cutting down expenses of production. Its expenses will be smaller than those of the separate units included in it. In a competitive régime the price of a commodity per unit tends to fall to the cost of production per unit of the least efficient firm that produces the goods in question at a given time. The large profits earned by the best equipped up-to-date firms represent the economies which these firms are able to effect in manufacturing the goods and putting them on the market. So long as there is free competition on the supply side, the costs of production of the firm that is just managing to carry on—that is, the firm on the margin—determine the price of the commodity.

When, however, competition has been superseded by monopoly a new class of considerations arise. The object of a monopoly is to secure the largest possible net profits. It is able to obtain these profits because it can control the supply. It may make the supply

large or small. But it does not necessarily fix a low output, because its monopoly profits may be larger if it produces on a big scale. It will not in general offer to the market as large a volume of goods as the independent competitive concerns of which it was formerly comprised would have produced, because it might then push the price down below the point at which it would obtain maximum net profits. Its aim is to put on the market just that volume of goods which will yield the greatest profit. A monopoly, therefore, has for its object the destruction of competition and not the realization of economies. In all competitive industries a compelling force is always at work urging producers to effect as many economies as possible in the purchase of raw materials, in the lay out and organization of their works, in the cost of labour and machinery and in the adoption of the best and most efficient forms of marketing. Only by these methods can any single firm hope to gain profits in excess of the profits gained by the marginal firm. But the same drive towards economical production does not occur in monopolistic undertakings. They can secure larger profits by regulating the output or by price manipulation.

Of course there are limits—vague fluctuating, ill-defined limits—to the power of a monopoly to raise prices. Governments may intervene with the object of safeguarding the consumer, other industries may begin to produce excellent substitutes, and, further, it is extremely difficult for a monopoly to gauge precisely the exact price at which the net returns will reach their maximum. But, although the monopolists may fear the force of public opinion even more than any of these, they can, up to a point, use the power of price manipulation to reap the maximum profit, whereas the ordinary firm is hard up against the sharp realities of competition. Its rivals make sure that it will not obtain too large a profit.

During the last six or seven years a new word has been coined which expresses, not so much a new and distinct type of industrial organization as a new emphasis on certain sides of the combination movement. That word is Rationalization. According to one of its exponents, rationalization "aims at four things: (1) concentration of production in the most efficient factories within an industry with a view to operation at a very high level of activity with a maximum reduction in cost per unit of output, (2) stability of market conditions through elimination of excessive competition between individual firms, (3) centralized marketing of finished goods and centralized purchasing of essential raw materials, (4) centralized research and development—which may be carried out either on a national or international basis or on both."*

From this description it appears that there is nothing specifically new about rationalization. It may mean simply the combination of a number of previously independent firms. It may mean, however, the complete merger of all the producing concerns in an industry into one gigantic unit; or it may mean an agreement, like a kartel, to form a common selling agency, to arrange definite quotas of output, and to fix selling prices. Further, an industry may be rationalized either on a national or international basis. So far as the rationalization programme contains anything new, it lies in the emphasis put on the necessity for union in order to improve selling agencies and to further research—two sides of industrial activity on which far too little stress has hitherto been laid in Great Britain.

* See a recent lecture by Mr. Hugh Quigley of the British Electrical and Allied Manufacturers' Association, published in *The Cost Accountant* for December, 1929.

CHAPTER VII

EARNINGS AND INCOMES

THE sharing or distribution of wealth raises many of the most interesting and most perplexing questions in economics. It is far from true to say, as is so often said, that all the problems of production have been completely solved; still less is it true to say that the problems of production depend less than those of distribution on the direction of human effort. So long as unemployment on a large scale persistently recurs in all industrial countries and so long as the average standard of comfort among large sections of the people remains as low as it is to-day, it is ridiculous to assert that the production of wealth presents no further problems for analysis. Still, while the size of the cake to be shared is of cardinal importance to society and to every individual in it, the average man may well be pardoned if he continues to hold the belief that the most important thing for him is not the size of the cake, but the size of the portion of the cake that is taken by other people. If the rest of the world consumes all but a tiny slice it is no comfort for him to know that the cake is a very large one. Nor can he be expected to show much enthusiasm for the advice often given to him that by working a little harder he could increase the size of the cake and get a larger share of it. "Yes," may well be his reply, "but if the other fellows run off with all the increase due to my work, how much better off shall I be?"

The size of individual incomes depends on many considerations which are not purely economic. Other things being equal, however, it does depend on the

total wealth that is produced by the co-operation of the great factors of production—land, labour, capital, and organization. Distribution in economics means essentially distribution, not to individuals, but to the factors of production. Ultimately all wealth must be enjoyed or consumed by individual men and women, but they acquire it, not at haphazard, but in virtue of the fact that each of them is a part owner of one or more of the instruments of production. As an owner, each of them has certain claims to the wealth produced. All wealth, be it iron bars or nuts, drawing-room settees, biscuit-tins, boots or books, railway engines or model yachts, is co-operatively produced. What issues at the end of the productive process are actual goods to be enjoyed by individuals. They have no claims, however, to a definite part of each good produced. But they can claim a definite part of all the wealth produced. The amount of their claim is, broadly speaking, determined by the economic laws regulating the distribution of the product to the agents of production. The shares falling to land, labour, capital, and organization are respectively called rent, wages, interest, and profits.

The remuneration of each separate factor is a price. Wages and profits are the price society pays for the services of wage-earners and business men, rent and interest the price obtained by the owners of land and capital for the assistance these factors render in the production of wealth. Like all other prices, these prices are determined by supply and demand. The broad lines on which the prices of all the factors are settled are essentially similar, though there are important differences in detail. Of them all, rent is the most difficult conception, for, as popularly used, the word connotes a great deal that is not covered by economic rent. Let us suppose that a given owner of land is able to market his crop or to lease his land at a price just sufficient to cover his costs of production.

He pays the normal market rate for his capital, labour, and all the other requisites of production, and he takes a normal profit. He may be taken, therefore, as the marginal producer. It is just worth his while to cultivate the land or to lease it—and no more than worth his while. In the market, however, there is only one price for the crop (of the same grade and quality) whatever the expenses of production may have been. If on any plot of land these expenses have been less than those of the marginal producer the owner will receive a surplus. That surplus is rent. The main elements in determining what rent will be paid for a piece of land are (1) the suitability of the land for certain crops or its suitability as a building site, and (2) the demand of consumers for food and raw materials and for house and building sites. The chief factor in settling the proportion of the national income falling into the category of rent is, therefore (next to the size of the population), the scarcity of the better kinds of land available for agricultural and building purposes. A rise in population may help to increase the industrial efficiency of the nation. It cannot increase the amount of land available for growing food or for building houses. Hence rent rises as population increases, and the only check to its continuous rise is the improvement in the methods of cultivation made possible by modern science.

Interest, which is the price of capital, does not increase with the growth of population. The rate of interest depends on the demand for, and the supply of, capital. Capital itself is, however, partly determined by the rate of interest. A high rate will tend to bring out additional savings; a low rate will tend to diminish savings. Similarly, a high rate of interest will reduce the demand for capital, and a low rate will increase it. But the rate of interest is not affected by the total volume of capital in existence or the total demand for the existing capital. The rate depends on the volume

of savings at a given time waiting to be translated into capital goods or to be used for consumption and on the total demand for this free or unspecialized capital. That is to say that the rate has nothing to do with the gross amount of capital, but only with the accruing savings that are available for investment. Of course there is no fixed amount of capital supplied at a given time, nor is there a fixed amount demanded. The effective demand depends on the rate at which holders of capital are willing to lend, and the effective supply on the rate which borrowers are prepared to offer. Savings may be kept off the capital market by the offer of too low rates. Indeed, a certain proportion of savings always remains in the money market—that is, they are used to give temporary accommodation to dealers. But savings temporarily employed in the money market are always passing out into the capital market—even during a period of trade depression. The demand for capital does not entirely cease, even during a period of very bad trade.

Another point of great importance is that savings or free capital offered for investment is neither disposed of nor required in a single lump or unit. It is offered and demanded rather as an indefinite number of units—that is to say, as so many hundreds or thousands of pounds. The lenders compete with each other as well as with the borrowers, and borrowers compete with each other as well as with lenders. The ultimate price at which all the available capital will be disposed of will be settled by a process of bargaining. On the side of demand, the usefulness of successive units to the borrowers will gradually decline. And on the side of supply the amount offered will depend on the sacrifices which the investors are willing to undergo—that is, on the effort, or cost, of saving the capital. Ultimately the rate of interest will be fixed at such a point that the amount of capital demanded will be exactly equal to that supplied.

Further, the rate of interest depends largely on the degree of risk attached to a particular investment. There are various kinds of risk present in varying degrees in different investments—political risks, commercial risks, financial risks. Every contingency likely to affect the income yield of capital invested is an element of risk. Some risks, however, are insurable; others are got rid of by speculation. Still others are made less important by modern financial methods, which enable investors to spread risks over their capital investments in practically any proportion they please. Joint stock companies generally divide their capital into ordinary and preferred stock, and they borrow on debentures or debenture stock. Each of these classes of stock involves the shareholder in a different degree of risk. Speculative investors can earn a higher rate of interest provided they are willing to take a greater risk, while the cautious investor who is content with a moderate annual yield has less danger of losing his capital. Socially also the device leads to a more economical distribution of the nation's capital.

The wages of labour are settled in a similar way. They depend on the supply of labour and the demand for labour, but here again both supply and demand are relative to, and conditioned by, price. Further, labour is not a dead "thing"—it means the work of thinking and feeling men and women. How, then, must the terms "demand and supply" be interpreted in applying them to labour?

The supply of labour may be said to consist either of the whole population or, at least, of all "workers" in the population—that is, "workers" whose work is predominantly manual. But it is impossible to jump from the number of these workers to the number of units of work or labour supplied. "The supply of labour may include the number of hours which each worker is willing to work, so that a unit of labour is regarded as a man-hour of work, and the supply of

such units as being increased by any increase in the amount of overtime worked per man. It may be further stretched to include the intensity of work that is done in each hour, the amount of physical energy expended, or even to include the quality of work done, depending on the intelligent skill with which energy is applied. All of these things are likely to bear some kind of relation to the price of labour."* In short, the supply of labour depends, not merely on the number of individuals or labour units seeking employment, but on their physical efficiency and mental alertness. Other factors that influence supply are the cost of training for particular employments and the standard of living to which workers are accustomed. Labour, like capital, can be used for many different purposes. But, unlike free capital, it is highly specialized from the very start. "Labour" may have got a definite bent or inclination towards some special employment or calling before it is actually employed. And the higher the standard of living to which a worker is accustomed, the stronger the resistance he offers to any fall in wages.

The demand for labour is not a fixed quantity. It was formerly supposed that there was a definite wages fund from which wages were paid, and that no part of that fund could be used for any alternative purpose. The demand for labour, however, rises and falls (1) with the amount of capital available for investment in industry and (2) with the number of additional uses to which the capital can be put. If trade is depressed, less new capital is used to lay down new works or to extend or recondition old works. Hence the demand for labour declines. Further, however, during an industrial depression the workers may stand out strongly against any serious decline in wages. Employers, therefore, will substitute machinery for labour as far as possible, and so the demand for labour

* Dobb, *Wages*, p. 87.

will decline. The modern movement towards rationalization, for example, means that the same, or an even greater, output will be produced by fewer workpeople, and therefore employment will be curtailed. On the other hand, during a period of expanding trade the price of capital rises and labour becomes an effective competitor with capital for the new work that has to be done.

Nothing has been said about the effect of trade unions on wages. The issues involved cannot be briefly stated. Probably trade unionism has done little to raise general wages above the level to which they would have risen. Most of its beneficial effects on the wage-earner have been outside the purely economic sphere.

Finally, a word or two on profits. As ordinarily treated the share of wealth that falls to organization and enterprise is generically termed profits or gross profits, being divisible into the three constituent parts —wages of superintendence or earnings of management, insurance against risk, and net profits. Wages of superintendence are the minimum remuneration of the business man. Business profits cannot permanently fall below these earnings for two reasons. First, if the total profits are less than the wages of management there will be a steady drift from the ranks of independent business men into the ranks of wage-earners. Secondly, owing to the spread of joint stock enterprise the independent one-man or partnership concern has been superseded by a form of organization in which the salaried class is distinct and separate.

Profits are measured upwards from the margin fixed by the wages of the management, and they are always tending to fall towards this margin. Every rise in price counteracts this tendency; so does every reduction in the cost of production. Producers are constantly searching out the best markets in which to

sell; they are also constantly trying to lower their expenses of production. If one producer finds a better market than his competitors, or if he is able to eliminate or reduce some cost which his competitors still incur, then he gains a net profit over and above the wages of superintendence. The existence of net profits, therefore, depends on the foresight and energy of business men. The business man, or the enterpriser, as he may be called, is essentially a risk taker. And when he is not allowed to exercise this function industry stagnates.

One concluding matter on which insufficient stress is sometimes laid is this. The effectiveness of each agent of production does not depend entirely on its own inherent effectiveness, but on the effective co-operation of all the rest. Two workmen may be equally well fitted for some particular job. But if one of them has better tools or machinery than the other he will produce more. Or it may be that nature is kinder to him than to his fellow. For example, a coal miner working a thin seam of coal cannot produce the same amount as a miner working on a rich seam. His output will depend on (1) his own energy and skill; (2) the "place" in which he is working; (3) the appliances the colliery management provide him with, such as electric coal cutters, tubs, etc.; and (4) the general organization of the colliery. Further, he may be dependent on other industries. Sometimes the supply of waggons at the pit-head may run short or blasting material may not be available.

Similarly, the effectiveness of capital may be reduced by bad management or unsatisfactory labour. Since the war British railways have had the equipment necessary to put up a much sterner fight than they have done against the competitors of the roads, but the confusion into which the higher directorate was thrown as a consequence of the 1921 amalgamation has prevented them from making the most effective

use of their equipment. Again, the most brilliant management may be thwarted by lack of sufficient capital or by the closing of markets to the goods the concern produces.

In brief, every factor in production is dependent on every other factor. Co-operation is, in the long run, the main element in the efficiency of the economic system.

CHAPTER VIII

THE ECONOMIC DRIFT

It is proverbially difficult to prophesy. But no pastime is more alluring. What shall be the burden of the prophet's message will depend very much on his temperament. In some moods we tend to idealize the past; in other moods, we paint it with colours overcharged with gloom. So in some moods we may feel very despondent about the economic future of the world or our country or our class, while in other moods we look forward hopefully, if not to some Utopia of our fancy, at least to progress, appreciable, though not perhaps uninterrupted, towards a fuller economic life. Economics is not an exact science. Short of some unforeseeable celestial catastrophe it is possible to predict in what part of the heavens our descendants may look for the moon at six o'clock in the evening of February 7, 2030. It is not possible, however, to say how the economic life of these same descendants will be organized, what clothes they will wear, what food they will eat, what sort of houses they will inhabit, how rich or how poor they will be, or what regions of the world will be the centre of its economic activities. These things are, happily perhaps, veiled from us, and it is idle to speculate.

About the near future prophecy may be a little less hesitating, though even here there is not much room for over-abounding confidence. To-day Great Britain is passing through the severest industrial depression it has known and our capacity for recuperation seems to be distinctly impaired. No speedy relief can be anticipated. Countries with a lower standard of life

can give employment to all their people. Countries with a higher standard of life like Canada and the United States are able to progress rapidly owing to their almost limitless national resources. Some countries are preoccupied with political problems, and others have submitted to the strong rule of the superman in the hope that so they will be able to live a strong self-contained national life and perhaps ultimately to extend their borders at the expense of other nations. The salient fact for Britain, however, is that in all countries under the influence of nationalist sentiment—the relatively rich and the relatively poor—foreign trade is regarded as being of much less economic importance than home trade. Hence Britain has found herself since the war cut off from markets on which she could formerly depend. She experiences the greatest difficulty in sending out sufficient surplus of manufactures to pay for the food and raw materials required from abroad.

This question of markets is vital to British recovery. It would be a policy of despair to weight the scales against foreign trade and to rely entirely on home markets. For one thing, as the home market is small and the rate of increase in population is slackening rapidly, the markets for which we can provide at home are certain to contract rather than to expand. Again, no feasible alternative to foreign trade is possible for a country which must rely on overseas sources of supply for its food and materials. We could only limit our dependence on our own resources by shipping a third of our people across the seas, or by submitting to a much lower standard of life. The only possible source, then, is to endeavour to find new external markets. The more new markets we can discover overseas the more cheaply we can produce for our home population. Wider markets mean greater production and lower costs per unit of output.

Where, then, are these markets to be discovered? Some enthusiasts declare that we should aim at a tariff-circled Empire based on free trade within its border; others suggest that we should help to build up a United States of Europe that may equal in resources and power of economic absorption the United States of America. But without discussing such conceptions as these, which bristle with political controversy, it can safely be said that the consuming power of the world at large is likely to offer ample scope for enterprising industrialists for a long time to come. It is a well-known maxim that the luxuries of one generation are the necessities of the next—a tendency which is not diminished in its economic effects by being sometimes open to question in relation to the moral well-being of the consumer. On the latter aspect of the matter a word will be said later in this chapter.

What of the future structure of industry? As has been hinted, the movement known as "Rationalization" will probably go forward by rapid strides in the next few years. In spite of the dubious position of many big concerns the future appears to be with large-scale industry; whether it will be economically efficient is a disputed point. Everything will turn on management. If industrial administration is subordinated to finance and the control of businesses put into the hands of the financial experts, the financiers must be servants and not masters. Otherwise the rationalization movement will not be successful. From what quarters the leaders of industry will be recruited presents a difficult problem. It will not be from below unless the liaison between industry and education becomes much closer than the English people, who only half believe in education, at present desire it to be. The largest undertakings to-day are apparently looking for recruits to the Civil Service and the Bar. The professions, except accountancy, hold out few

prospects for the able and ambitious, but they provide a satisfactory indirect means of entry into business, and their importance in this respect will probably not decline.

In some of the larger industries combination will be so close and firmly tied that the public trust form of organization will be inevitable. The conception of nationalized industry is likely to be rendered obsolete by State action designed to diminish inequalities of wealth. The authors of a recent political study* have defined public concerns, which they expect to increase in number, as "undertakings which require large amounts of capital, yet may fail to attract private enterprise on an adequate scale, either because of the necessity of limiting profits or for some other reason; where unavoidable conditions of monopoly would render private enterprise dangerous; or where the private shareholder has ceased to perform a useful function." It may be feared that the extension of this principle, already well known in trading, like the Clyde Trust or the Port of London Authority, will limit the field of competition. So it certainly will in one direction, but in other directions it may even intensify it, for the administration of such public concerns will certainly be bureaucratic and adventurous spirits will seek an outlet for their activities in outside industries.

So far as industry can be improved by conscious regulation, there is every ground for hopefulness. Room for misgiving appears, however, when the broader and more permanent characteristics of industrial civilization are considered. Its expansion depends on the development of new material wants. But human life is short and the unlimited expansion of future wants will leave less and less time available for the cultivation of higher wants. Two centuries ago Bishop Berkeley, the great philosopher and master

* *Britain's Industrial Future*, p. 75.

of English style, addressed some wise words to his Irish fellow-countrymen. He pointed to their miserable condition and adjured them to save and develop their industries. He invited them to consider whether they might not thus "eat, drink, play, dress, visit, sleep in good beds, sit by good fires, build plant, raise a name, make estates and spend them."* Here we have the pith and marrow of economic life as narrowly conceived. The questions Western civilization has to ask itself are whether it desires to go on maximizing its material wants and reducing its spiritual wants or whether a truer ideal might not be to maximize spiritual wants and reduce material wants. The diffusion of sound economic knowledge can do little to help us here. It has done much in the material sphere. It has provided the means by which a far fuller material life has been made possible for large classes of men and women who were hitherto unconsidered trifles in the social system. Our standards of economic comfort have risen and are still rising, the worst types of poverty have been removed, the unskilled workman is better off than he has ever been. It is almost certain that, unless another war or some similar catastrophe should intervene, every form of grinding poverty will be completely removed within the next generation. That is much, but it is not everything. The one non-material benefit which has been the fruit of recent economic progress is increased leisure—a benefit sometimes painfully won by the increased strain and monotony of the working hours. But this is a drawback that may be removed by the experimental work now being done by the experts of the National Institute of Industrial Psychology. The ultimate question here is: How will men and women spend the increased leisure? Will they regard it merely as a longer breathing space between work? Or, on the other hand, will the fruitful employment of leisure be

* Bishop Berkeley, *The Querist*.

the subject of as much care and forethought as the wise expenditure of money?

These are only one or two of the pregnant questions that every student of economics, however superficial or however thorough his knowledge may be, must be continually putting to himself. The solution of many economic problems is not to be found in the study of economics. At best economic life is a means and not an end, and economics is only an instrument—a necessary instrument, it may be, but still only an instrument—for the achievement of higher ends. The final task of showing how material welfare can best be correlated with all the higher aspirations of mankind lies beyond its scope.

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